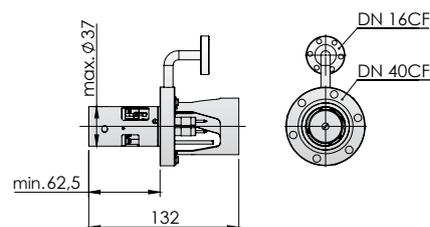


IS 40C1

ION SOURCE



SAMPLE CLEANING

DESCRIPTION

The Ion Source IS 40C1 is a compact, easy-to-use extractor type ion gun for sample surface cleaning. The source generates an ion current of $>70 \mu\text{A}/\text{cm}^2$ (Argon) with Gaussian beam profile. The source insertion length is adaptable to individual requirements (between 62.5 mm - 384.5 mm, other on request).

FEATURES

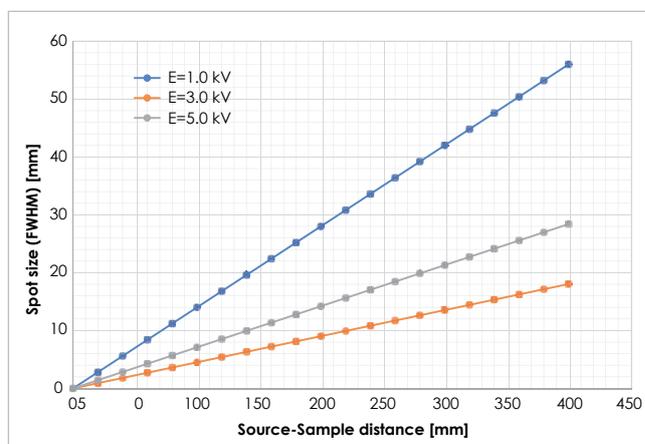
- Operation with inert (Ar) & reactive gases (O_2 , H_2 , hydrocarbons with reduced lifetime)
- High Ion Beam Current
- Long lifetime
- High stability

OPTIONS

- Gas dosing system
- Customised insertion length
- Linear shift

TECHNICAL DATA

Mounting flange	DN 40CF (non-rotatable)
Energy range	0.12 keV - 5 keV
Current density	$> 120 \mu\text{A} / \text{cm}^2$ (for distance 30 mm)
Shield	Cu, stainless steel (for reactive gases)
Cathode type	yttrium oxide coated iridium
Insertion length	min. 62.5 mm, other lengths possible OD: max. 37 mm
FWHM	dependent on ion energy and working distance (e.g. 3 mm for distance 30 mm)
Typical working distance	30 - 250 mm
Bakeout temperature	up to 250 °C
Working pressure	$10^{-5} - 10^{-6}$ mbar



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IS40C1

IS40-PS

ION SOURCE POWER SUPPLY (IS 40C1 mode)



DESCRIPTION

The IS40-PS power supply drives the IS40C1 Ion Source which is used for broad area UHV sample cleaning and preparation. The IS40-PS power supply allows fine adjustment of both beam energy and ion density via digital encoders. All settings can be manually adjusted or can be stored and recalled automatically after unit switch on. The unit also features a built in timer and automatic standby mode. Easy firmware update via USB port. The unit can be remotely controlled via RS232/485 or Ethernet interfaces. The unit is equipped with autosave function (the device save your parameters, preset and apply them automatically after restart).

OPTIONS

- Analog I/O card for vacuum measurement (1 gauge)

ION SOURCE CONTROL APPLICATION



TECHNICAL DATA

Supply voltage	100 - 240 V, 50-60 Hz, (power consumption max 250 W)
Beam energy (U_{eng})	0.00 - 5.00 keV, resolution 0.01 keV, ripple <200 mV
Emission current (I_e)	0.01 mA - 10 mA, resolution 0.01 mA
Timer	dual mode timer 0 s - 99 h 59 m
Vacuum measurement (optional)	CTR90, TTR91, TTR211, PTR225, PTR90, ITR90, ITR100, Baratron, ANALOG IN, MKS937A, PG105, MG13/14, PKR251/360/361, PCR280, ATMION
Communication interface	RS232/485, Ethernet
Communication protocol	MODBUS-TCP
User interface	7" TFT display with touchscreen, digital encoder
Interface languages	English, German, Polish
Dimensions	483 × 133 × 437 mm (W×H×D), 19" rack mountable
Weight (approx.)	9.2 kg



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